Patent claims

1. Isopentylcarboxanilides of the formula (I)

5 in which

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L represents
$$\stackrel{?}{\downarrow_2}^3$$
 $\stackrel{?}{\downarrow_3}$ $\stackrel{?}{\downarrow_4}$ $\stackrel{?}{\downarrow_4}$,

where the bond labelled with * is attached to the amide, whereas the bond labelled with # is attached to the alkyl side chain,

- represents hydrogen, C₁-C₈-alkyl, C₁-C₆-alkylsulphinyl, C₁-C₆-alkylsulphonyl, C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈-cycloalkyl; C₁-C₆-haloalkyl, C₁-C₄-haloalkylthio, C₁-C₄-haloalkylsulphinyl, C₁-C₄-haloalkylsulphonyl, halo-C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; formyl, formyl-C₁-C₃-alkyl, (C₁-C₃-alkyl)carbonyl-C₁-C₃-alkyl, (C₁-C₃-alkoxy)carbonyl-C₁-C₃-alkyl; halo-(C₁-C₃-alkyl)carbonyl-C₁-C₃-alkyl, halo-(C₁-C₃-alkoxy)carbonyl-C₁-C₃-alkyl)carbonyl, (C₁-C₈-alkyl)carbonyl, (C₁-C₄-alkoxy-C₁-C₄-alkyl)carbonyl, (C₃-C₈-cycloalkyl)carbonyl; (C₁-C₆-haloalkyl)carbonyl, (C₁-C₆-haloalkoxy)carbonyl, (halo-C₁-C₄-alkoxy-C₁-C₄-alkyl)carbonyl, (C₃-C₈-halocycloalkyl)carbonyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; or -C(=O)C(=O)R⁴, -CONR⁵R⁶ or -CH₂NR⁷R⁸,
- R² represents hydrogen, fluorine, chlorine, methyl or trifluoromethyl,
- R³ represents hydrogen, halogen, C₁-C₈-alkyl, C₁-C₈-haloalkyl,
- R⁴ represents hydrogen, C₁-C₈-alkyl, C₁-C₈-alkoxy, C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈-cycloalkyl; C₁-C₆-haloalkyl, C₁-C₆-haloalkoxy, halo-C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,
- R⁵ and R⁶ independently of one another each represent hydrogen, C₁-C₈-alkyl, C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈-cycloalkyl; C₁-C₈-haloalkyl, halo-C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,

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R⁵ and R⁶ furthermore together with the nitrogen atom to which they are attached form a saturated heterocycle having 5 to 8 ring atoms which is optionally mono- or polysubstituted by identical or different substituents from the group consisting of halogen and C₁-C₄-alkyl, where the heterocycle may contain 1 or 2 further non-adjacent heteroatoms from the group consisting of oxygen, sulphur and NR⁹,

R⁷ and R⁸ independently of one another represent hydrogen, C₁-C₈-alkyl, C₃-C₈-cycloalkyl; C₁-C₈-haloalkyl, C₃-C₈-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,

R⁷ and R⁸ furthermore together with the nitrogen atom to which they are attached form a saturated heterocycle having 5 to 8 ring members which is optionally mono- or polysubstituted by identical or different substituents from the group consisting of halogen and C₁-C₄-alkyl, where the heterocycle may contain 1 or 2 further non-adjacent heteroatoms from the group consisting of oxygen, sulphur and NR⁹,

R⁹ represents hydrogen or C₁-C₆-alkyl,

A represents the radical of the formula (A1)

$$R^{10}$$
 R^{11}
 R^{11}
(A1), in which

R¹⁰ represents hydrogen, hydroxyl, formyl, cyano, halogen, nitro, C₁-C₄-alkyl, C₁-C₄-alkoxy, C₁-C₄-alkylthio, C₃-C₆-cycloalkyl, C₁-C₄-haloalkyl, C₁-C₄-haloalkylthio having in each case 1 to 5 halogen atoms, aminocarbonyl or aminocarbonyl -C₁-C₄-alkyl,

 R^{11} represents hydrogen, halogen, cyano, C_1 - C_4 -alkyl, C_1 - C_4 -alkoxy, C_1 - C_4 -alkylthio, C_1 - C_4 -haloalkyl or C_1 - C_4 -haloalkylthio having in each case 1 to 5 halogen atoms, and

R¹² represents hydrogen, C₁-C₄-alkyl, hydroxy-C₁-C₄-alkyl, C₂-C₆-alkenyl, C₃-C₆-cycloalkyl, C₁-C₄-alkylthio-C₁-C₄-alkyl, C₁-C₄-alkoxy-C₁-C₄-alkyl, C₁-C₄-haloalkylthio-C₁-C₄-alkyl, C₁-C₄-haloalkoxy-C₁-C₄-alkyl having in each case 1 to 5 halogen atoms, or represents phenyl,

with the proviso that R^{10} does not represent iodine if R^{11} represents hydrogen and with the proviso that R^{10} does not represent trifluoromethyl or difluoromethyl if R^{3} and R^{11} represent hydrogen and R^{12} represents methyl,

or

A represents the radical (A2)

R¹³ and R¹⁴ independently of one another represent hydrogen, halogen, C₁-C₄-alkyl or C₁-C₄-haloalkyl having 1 to 5 halogen atoms and

R¹⁵ represents halogen, cyano or C₁-C₄-alkyl, or C₁-C₄-haloalkyl or C₁-C₄-haloalkoxy having in each case 1 to 5 halogen atoms,

or

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A represents the radical of the formula (A3)

R¹⁶ and R¹⁷ independently of one another represent hydrogen, halogen, C₁-C₄-alkyl or C₁-C₄-haloalkyl having 1 to 5 halogen atoms and

R¹⁸ represents hydrogen, C₁-C₄-alkyl or C₁-C₄-haloalkyl having 1 to 5 halogen atoms,

or

A represents the radical of the formula (A4)

R¹⁹

represents hydrogen, halogen, hydroxyl, cyano, C₁-C₆-alkyl, C₁-C₄-haloalkyl, C₁-C₄-haloalkoxy or C₁-C₄-haloalkylthio having in each case 1 to 5 halogen atoms,

or A

represents the radical of the formula (A5)

$$\mathbb{R}^{21}$$
 N \mathbb{R}^{20} (A5), in which

R²⁰ represents halogen, hydroxyl, cyano, C₁-C₄-alkyl, C₁-C₄-alkoxy, C₁-C₄-alkylthio, C₁-C₄-haloalkyl, C₁-C₄-haloalkylthio or C₁-C₄-haloalkoxy having in each case 1 to 5 halogen atoms and

R²¹ represents hydrogen, halogen, cyano, C₁-C₄-alkyl, C₁-C₄-alkoxy, C₁-C₄-alkylthio, C₁-C₄-haloalkyl, C₁-C₄-haloalkoxy having in each case 1 to 5 halogen atoms, C₁-C₄-alkylsulphinyl or C₁-C₄-alkylsulphonyl,

or

A represents the radical of the formula (A6)

or

A represents the radical of the formula (A7)

(A7), in which

R²² represents C₁-C₄-alkyl or C₁-C₄-haloalkyl having 1 to 5 halogen atoms,

or

A represents the radical of the formula (A8)

(A8), in which

R²³ represents C₁-C₄-alkyl or C₁-C₄-haloalkyl having 1 to 5 halogen atoms,

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A represents the radical of the formula (A9)

$$R^{25}$$
 (A9), in v

 R^{24} and R^{25} independently of one another represent hydrogen, halogen, amino, C_1 - C_4 -alkyl or C_1 - C_4 -haloalkyl having 1 to 5 halogen atoms and

R²⁶ represents hydrogen, C₁-C₄-alkyl or C₁-C₄-haloalkyl having 1 to 5 halogen atoms,

with the proviso that R^{24} and R^{26} do not simultaneously represent methyl if R^{25} represents hydrogen,

or

A represents the radical of the formula (A10)

(A10) in which

 R^{27} and R^{28} independently of one another represent hydrogen, halogen, amino, nitro, C_1 - C_4 -alkyl or C_1 - C_4 -haloalkyl having 1 to 5 halogen atoms and

R²⁹ represents halogen, C₁-C₄-alkyl or C₁-C₄-haloalkyl having 1 to 5 halogen atoms,

or

A represents the radical of the formula (A11)

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or

or

or

or

$$R^{30}$$
 (A11) in which

R³⁰ represents hydrogen, halogen, amino, C₁-C₄-alkylamino, di-(C₁-C₄-alkyl)amino, cyano, C₁-C₄-alkyl or C₁-C₄-haloalkyl having 1 to 5 halogen atoms and

R³¹ represents halogen, hydroxyl, C₁-C₄-alkyl, C₁-C₄-alkoxy, C₃-C₆-cycloalkyl, C₁-C₄-haloalkyl or C₁-C₄-haloalkoxy having in each case 1 to 5 halogen atoms,

with the proviso that R^{31} does not represent trifluoromethyl, difluoromethyl or methyl if R^3 represents hydrogen and R^{30} represents methyl,

A represents the radical of the formula (A12)

$$R^{32}$$
 (A12) in which

R³² represents hydrogen, halogen, amino, C₁-C₄-alkylamino, di-(C₁-C₄-alkyl)amino, cyano, C₁-C₄-alkyl or C₁-C₄-haloalkyl having 1 to 5 halogen atoms and

 R^{33} represents halogen, C_1 - C_4 -alkyl or C_1 - C_4 -haloalkyl having 1 to 5 halogen atoms,

A represents the radical of the formula (A13)

$$R^{34}$$
 (A13) in which

 R^{34} represents hydrogen or $C_1\text{-}C_4\text{-alkyl}$ and

R³⁵ represents halogen or C₁-C₄-alkyl,

A represents the radical of the formula (A14)

$$(A14)$$
 in which

R³⁶ represents hydrogen, halogen, C₁-C₄-alkyl or C₁-C₄-haloalkyl having 1 to 5 halogen atoms,

A represents the radical of the formula (A15)

R³⁷ represents halogen, hydroxyl, C₁-C₄-alkyl, C₁-C₄-alkoxy, C₁-C₄-alkylthio, C₁-C₄-haloalkyl, C₁-C₄-haloalkylthio or C₁-C₄-haloalkoxy having in each case 1 to 5 halogen atoms,

or

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A represents the radical of the formula (A16)

$$R^{40}$$
 R^{39}
 R^{39}
 R^{41}
(A16) in which

 R^{38} represents hydrogen, cyano, C_1 - C_4 -alkyl, C_1 - C_4 -haloalkyl having 1 to 5 halogen atoms, C_1 - C_4 -alkoxy- C_1 - C_4 -alkyl, hydroxy- C_1 - C_4 -alkyl, C_1 - C_4 -alkylsulphonyl, di(C_1 - C_4 -alkyl)aminosulphonyl, C_1 - C_6 -alkylcarbonyl or in each case optionally substituted phenylsulphonyl or benzoyl,

R³⁹ represents hydrogen, halogen, C₁-C₄-alkyl or C₁-C₄-haloalkyl having 1 to 5 halogen atoms,

R⁴⁰ represents hydrogen, halogen, cyano, C₁-C₄-alkyl or C₁-C₄-haloalkyl having 1 to 5 halogen atoms,

R⁴¹ represents hydrogen, halogen, C₁-C₄-alkyl or C₁-C₄-haloalkyl having 1 to 5 halogen atoms,

with the proviso that R⁴⁰ does not represent trifluoromethyl,

or

A represents the radical of the formula (A17)

R⁴² represents C₁-C₄-alkyl.

2. Isopentylcarboxanilides of the formula (I) according to Claim 1 in which

L represents
$$\begin{pmatrix} & & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & & \\ & & & & \\ & &$$

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where the bond marked with * is attached to the amide, whereas the bond marked with # is attached to the alkyl side chain,

- represents hydrogen, C₁-C₆-alkyl, C₁-C₄-alkylsulphinyl, C₁-C₄-alkylsulphonyl, C₁-C₃-alkoxy-C₁-C₃-alkyl, C₃-C₆-cycloalkyl; C₁-C₄-haloalkyl, C₁-C₄-haloalkylthio, C₁-C₄-haloalkylsulphinyl, C₁-C₄-haloalkylsulphonyl, halo-C₁-C₃-alkoxy-C₁-C₃-alkyl, C₃-C₈-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; formyl, formyl-C₁-C₃-alkyl, (C₁-C₃-alkyl)carbonyl-C₁-C₃-alkyl, (C₁-C₃-alkoxy)carbonyl-C₁-C₃-alkyl; halo-(C₁-C₃-alkyl)carbonyl-C₁-C₃-alkyl, halo-(C₁-C₃-alkoxy)carbonyl-C₁-C₃-alkyl having in each case 1 to 13 fluorine, chlorine and/or bromine atoms; (C₁-C₆-alkyl)carbonyl, (C₁-C₄-alkoxy)carbonyl, (C₁-C₃-alkoxy-C₁-C₃-alkyl)carbonyl, (C₃-C₆-cycloalkyl)carbonyl; (C₁-C₄-haloalkyl)carbonyl, (C₁-C₄-haloalkoxy)carbonyl, (halo-C₁-C₃-alkoxy-C₁-C₃-alkyl)carbonyl, (C₃-C₆-halocycloalkyl)carbonyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; or -C(=O)C(=O)R⁴, -CONR⁵R⁶ or -CH₂NR⁷R⁸,
- R² represents hydrogen, fluorine, chlorine, methyl or trifluoromethyl,
 - R³ represents hydrogen, fluorine, chlorine, bromine, iodine, C₁-C₆-alkyl, C₁-C₆-haloalkyl having 1 to 13 fluorine, chlorine and/or bromine atoms,
 - R⁴ represents hydrogen, C₁-C₆-alkyl, C₁-C₄-alkoxy, C₁-C₃-alkoxy-C₁-C₃-alkyl, C₃-C₆-cycloalkyl; C₁-C₄-haloalkyl, C₁-C₄-haloalkoxy, halo-C₁-C₃-alkoxy-C₁-C₃-alkyl, C₃-C₆-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,
 - R⁵ and R⁶ independently of one another each represent hydrogen, C₁-C₆-alkyl, C₁-C₃-alkoxy-C₁-C₃-alkyl, C₃-C₆-cycloalkyl; C₁-C₄-haloalkyl, halo-C₁-C₃-alkoxy-C₁-C₃-alkyl, C₃-C₆-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,
- R⁵ and R⁶ furthermore together with the nitrogen atom to which they are attached form a saturated heterocycle having 5 to 8 ring atoms which is optionally monoto tetrasubstituted by identical or different substituents from the group consisting of halogen and C₁-C₄-alkyl, where the heterocycle may contain 1 or 2 further non-adjacent heteroatoms from the group consisting of oxygen, sulphur and NR⁹,
- R⁷ and R⁸ independently of one another represent hydrogen, C₁-C₆-alkyl, C₃-C₆-cycloalkyl; C₁-C₄-haloalkyl, C₃-C₆-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,
- R⁷ and R⁸ furthermore together with the nitrogen atom to which they are attached form a saturated heterocycle having 5 to 8 ring atoms which is optionally mono- or polysubstituted by identical or different substituents from the group consisting of

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halogen and C_1 - C_4 -alkyl, where the heterocycle may contain 1 or 2 further non-adjacent heteroatoms from the group consisting of oxygen, sulphur and R^9 ,

R⁹ represents hydrogen or C₁-C₄-alkyl,

A represents the radical of the formula (A1)

$$R^{10}$$
 R^{11}
 R^{11}
(A1) in which

R¹⁰ represents hydrogen, hydroxyl, formyl, cyano, fluorine, chlorine, bromine, iodine, methyl, ethyl, isopropyl, methoxy, ethoxy, methylthio, ethylthio, cyclopropyl, C₁-C₂-haloalkyl, C₁-C₂-haloalkoxy having in each case 1 to 5 fluorine, chlorine and/or bromine atoms, trifluoromethylthio, difluoromethylthio, aminocarbonyl, aminocarbonylmethyl or aminocarbonylethyl,

R¹¹ represents hydrogen, chlorine, bromine, iodine, methyl, ethyl, methoxy, ethoxy, methylthio, ethylthio, C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms, and

R¹² represents hydrogen, methyl, ethyl, n-propyl, isopropyl, C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms, hydroxymethyl, hydroxyethyl, cyclopropyl, cyclopentyl, cyclohexyl or phenyl,

with the proviso that R^{10} does not represent iodine if R^{11} represents hydrogen and with the proviso that R^{10} does not represent trifluoromethyl or difluoromethyl if R^{3} and R^{11} represent hydrogen and R^{12} represents methyl,

or

A represents the radical of the formula (A2)

$$R^{14}$$
 (A2) in which

R¹³ and R¹⁴ independently of one another represent hydrogen, fluorine, chlorine, bromine, methyl, ethyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

R¹⁵ represents fluorine, chlorine, bromine, iodine, cyano, methyl, ethyl, C₁-C₂-haloalkyl or C₁-C₂-haloalkoxy having in each case 1 to 5 fluorine, chlorine and/or bromine atoms,

30 or

A represents the radical of the formula (A3)

$$R^{17}$$

$$R^{16}$$

$$R^{18}$$
(A3) in which

 R^{16} and R^{17} independently of one another represent hydrogen, fluorine, chlorine, bromine, methyl, ethyl or C_1 - C_2 -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

R¹⁸ represents hydrogen, methyl, ethyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents the radical of the formula (A4)

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R¹⁹ represents hydrogen, fluorine, chlorine, bromine, iodine, hydroxyl, cyano, C₁-C₄-alkyl, C₁-C₂-haloalkyl, C₁-C₂-haloalkoxy or C₁-C₂-haloalkylthio having in each case 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents the radical of the formula (A5)

$$\mathbb{R}^{21}$$
 (A5) in which

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R²⁰ represents fluorine, chlorine, bromine, iodine, hydroxyl, cyano, C₁-C₄-alkyl, methoxy, ethoxy, methylthio, ethylthio, difluoromethylthio, trifluoromethylthio, C₁-C₂-haloalkyl or C₁-C₂-haloalkoxy having in each case 1 to 5 fluorine, chlorine and/or bromine atoms and

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R²¹ represents hydrogen, fluorine, chlorine, bromine, iodine, cyano, C₁-C₄-alkyl, methoxy, ethoxy, methylthio, ethylthio, C₁-C₂-haloalkyl or C₁-C₂-haloalkoxy having in each case 1 to 5 fluorine, chlorine and/or bromine atoms, C₁-C₂-alkylsulphinyl or C₁-C₂-alkylsulphonyl,

or

A represents the radical of the formula (A6)

or

A represents the radical of the formula (A7)

R²² represents methyl, ethyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

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A represents the radical of the formula (A8)

R²³ represents methyl, ethyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

10 A represents the radical of the formula (A9)

$$\mathbb{R}^{25}$$
 (A9) in which

 R^{24} and R^{25} independently of one another represent hydrogen, fluorine, chlorine, bromine, amino, methyl, ethyl or C_1 - C_2 -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms, and

 R^{26} represents hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl or C_1 - C_2 -haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

with the proviso that R^{24} and R^{26} do not simultaneously represent methyl if R^{25} represents hydrogen,

or A

represents the radical of the formula (A10)

$$R^{28}$$
 R^{29} (A10) in which

R²⁷ and R²⁸ independently of one another represent hydrogen, fluorine, chlorine, bromine, amino, nitro, methyl, ethyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

R²⁹ represents fluorine, chlorine, bromine, methyl, ethyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents the radical of the formula (A11)

$$R^{30}$$
 (A11) in which

R³⁰ represents hydrogen, fluorine, chlorine, bromine, amino, C₁-C₄-alkylamino, di(C₁-C₄-alkyl)amino, cyano, methyl, ethyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

R³¹ represents fluorine, chlorine, bromine, hydroxyl, methyl, ethyl, methoxy, ethoxy, cyclopropyl, C₁-C₂-haloalkyl or C₁-C₂-haloalkoxy having 1 to 5 fluorine, chlorine and/or bromine atoms,

with the proviso that R³¹ does not represent trifluoromethyl, difluoromethyl or methyl if R³ represents hydrogen and R³⁰ represents methyl,

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A represents the radical of the formula (A12)

$$R^{32}$$
 (A12) in which

R³² represents hydrogen, fluorine, chlorine, bromine, amino, C₁-C₄-alkylamino, di(C₁-C₄-alkyl)amino, cyano, methyl, ethyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

R³³ represents fluorine, chlorine, bromine, methyl, ethyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents the radical of the formula (A13)

$$R^{34}$$
 (A13) in which

R³⁴ represents hydrogen, methyl or ethyl and

R³⁵ represents fluorine, chlorine, bromine, methyl or ethyl,

or

A represents the radical of the formula (A14)

$$(A14)$$
 in which

R³⁶ represents hydrogen, fluorine, chlorine, bromine, methyl, ethyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents the radical of the formula (A15)

R³⁷ represents fluorine, chlorine, bromine, iodine, hydroxyl, C₁-C₄-alkyl, methoxy, ethoxy, methylthio, ethylthio, difluoromethylthio, trifluoromethylthio, C₁-C₂-haloalkyl or C₁-C₂-haloalkoxy having in each case 1 to 5 fluorine, chlorine and/or bromine atoms.

or

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A represents the radical of the formula (A16)

$$R^{40}$$
 R^{39}
 R^{39}
 R^{41}
 R^{38}
(A16) in which

R³⁸ represents hydrogen, methyl, ethyl, C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms, C₁-C₂-alkoxy-C₁-C₂-alkyl, hydroxymethyl, hydroxyethyl, methylsulphonyl or dimethylaminosulphonyl,

R³⁹ represents hydrogen, fluorine, chlorine, bromine, methyl, ethyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

R⁴⁰ represents hydrogen, fluorine, chlorine, bromine, cyano, methyl, ethyl, isopropyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

R⁴¹ represents hydrogen, fluorine, chlorine, bromine, methyl, ethyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

with the proviso that R⁴⁰ does not represent trifluoromethyl,

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A represents the radical of the formula (A17)

R⁴² represents methyl, ethyl, n-propyl or isopropyl.

- 25 3. Isopentylcarboxanilides of the formula (I) according to Claim 1 or 2 in which L represents L-1.
 - 4. Isopentylcarboxanilides of the formula (I) according to Claim 1 or 2 in which L represents L-2.

- Isopentylcarboxanilides of the formula (I) according to Claim 1 or 2 in which R^1 represents hydrogen, formyl or $-C(=O)C(=O)R^4$, where R^4 is as defined in Claim 1 or 2.
- 6. Isopentylcarboxanilides of the formula (I) according to Claim 1 or 2 in which A represents
 5 A1.
 - 7. Isopentylcarboxanilides of the formula (I) according to Claim 1 or 2, in which R³ represents hydrogen.
- 10 8. Isopentylcarboxanilides of the formula (I) according to Claim 1 or 2 in which R³ represents halogen, C₁-C₈-alkyl or C₁-C₈-haloalkyl.
 - 9. Process for preparing the compounds of the formula (I) according to Claim 1, characterized in that
- a) carboxylic acid derivatives of the formula (II)

in which

A is as defined in Claim 1 and

X¹ represents halogen or hydroxyl,

are reacted with an aniline derivative of the formula (III)

$$\begin{array}{c|c}
HN \longrightarrow L \\
R^1 \\
H_3C \longrightarrow CH_3
\end{array}$$
(III)

in which L, R¹ and R³ are as defined above,

if appropriate in the presence of a catalyst, if appropriate in the presence of a condensing agent, if appropriate in the presence of an acid binder and if appropriate in the presence of a diluent,

or

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b) isopentylcarboxanilides of the formula (I-a)

in which

L, A and R³ are as defined in Claim 1, are reacted with halides of the formula (IV)

$$R^{1-A}X^2$$
 (IV)

in which

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X² represents chlorine, bromine or iodine,

R^{1-A} represents C₁-C₈-alkyl, C₁-C₆-alkylsulphinyl, C₁-C₆-alkylsulphonyl, C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈-cycloalkyl; C₁-C₆-haloalkyl, C₁-C₄-haloalkylthio, C₁-C₄-haloalkylsulphinyl, C₁-C₄-haloalkylsulphonyl, halo-C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; formyl, formyl-C₁-C₃-alkyl, (C₁-C₃-alkyl)carbonyl-C₁-C₃-alkyl, (C₁-C₃-alkyl)carbonyl-C₁-C₃-alkyl, halo-(C₁-C₃-alkoxy)carbonyl-C₁-C₃-alkyl having in each case 1 to 13 fluorine, chlorine and/or bromine atoms;

 $(C_1-C_8-alkyl)$ carbonyl, $(C_1-C_8-alkoxy)$ carbonyl, $(C_1-C_4-alkoxy-C_1-C_4-alkyl)$ carbonyl, $(C_3-C_8-cycloalkyl)$ carbonyl; $(C_1-C_6-haloalkyl)$ carbonyl, $(C_3-C_8-alkoxy)$ carbonyl, $(C_3-C_8-alkoxy)$ carbonyl, $(C_3-C_8-alkoxy)$ carbonyl, $(C_3-C_8-alkoxy)$ carbonyl, $(C_3-C_8-alkoxy)$ carbonyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; or $-C(=O)C(=O)R^4$, $-CONR^5R^6$ or $-CH_2NR^7R^8$,

where R⁴, R⁵, R⁶, R⁷ and R⁸ are as defined in Claim 1, in the presence of a base and in the presence of a diluent,

or

isopentone derivatives of the formula (V)

$$\begin{array}{c|c} A & & \\ & & \\ R^1 & & \\ & & \\ H_3C & & \\ & & \\ CH_3 & & \\ \end{array}$$
 (V)

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in which

R¹, R², R³ and A are as defined in Claim 1,

are reacted with hydrazine (or hydrazine hydrate) in the presence of a base and, if appropriate, in the presence of a diluent,

or

d) isopentene derivatives of the formula (VI)

$$\begin{array}{c|c} A & \\ & \\ R^1 & \\ & \\ H_3C & \\ CH_3 & \end{array} \tag{VI)}$$

in which R1, R2, R3 and A are as defined in Claim 1,

are hydrogenated, if appropriate in the presence of a diluent and if appropriate in the presence of a catalyst,

or

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e) isopentyne derivatives of the formula (VII)

$$\begin{array}{c|c}
A & R^2 \\
R^1 & R^3 \\
H_3C & CH_3
\end{array}$$
(VII)

in which R¹, R², R³ and A are as defined in Claim 1,

are hydrogenated, if appropriate in the presence of a diluent and if appropriate in the presence of a catalyst.

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10. Compositions for controlling unwanted microorganisms, characterized in that they comprise at least one isopentylcarboxanilide of the formula (I) according to Claim 1, in addition to extenders and/or surfactants.

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- 11. Use of isopentylcarboxanilides of the formula (I) according to Claim 1 for controlling unwanted microorganisms.
- Method for controlling unwanted microorganisms, characterized in that isopentylcarboxanilides of the formula (I) according to Claim 1 are applied to the microorganisms and/or their habitat.
- 13. Process for preparing compositions for controlling unwanted microorganisms, characterized in that isopentylcarboxanilides of the formula (I) according to Claim 1 are mixed with extenders and/or surfactants.

14. Aniline derivatives of the formula (III-b)

$$R^{1-B}$$
 (III-b)

in which

R1-B a)

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represents C₁-C₈-alkyl, C₁-C₆-alkylsulphinyl, C₁-C₆-alkylsulphonyl, C₁-C₄alkoxy-C₁-C₄-alkyl, C₃-C₈-cycloalkyl; C₁-C₆-haloalkyl, C₁-C₄-haloalkylthio, C_1 - C_4 -haloalkylsulphinyl, C_1 - C_4 -haloalkylsulphonyl, halo- C_1 - C_4 -alkoxy-C₁-C₄-alkyl, C₃-C₈-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; formyl, formyl-C₁-C₃-alkyl, (C₁-C₃-alkyl)carbonyl-C₁-C₃-alkyl, (C₁-C₃-alkoxy)carbonyl-C₁-C₃-alkyl; halo-(C₁-C₃-alkyl)carbonyl-C₁-C₃-alkyl, halo-(C₁-C₃-alkoxy)carbonyl-C₁-C₃-alkyl having in each case 1 to 13 fluorine, chlorine and/or bromine atoms;

 $(C_1-C_8-alkyl)$ carbonyl, $(C_1-C_8-alkoxy)$ carbonyl, $(C_1-C_4-alkoxy-C_1-C_4-alkyl)$ carbonyl, (C₃-C₈-cycloalkyl)carbonyl; (C₁-C₆-haloalkyl)carbonyl, (C₁-C₆haloalkoxy)carbonyl, (halo-C₁-C₄-alkoxy-C₁-C₄-alkyl)carbonyl, halocycloalkyl)carbonyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; or -C(=O)C(=O)R⁴, CONR⁵R⁶ or -CH₂NR⁷R⁸, and

 R^{3-B} represents hydrogen, halogen, C₁-C₈-alkyl, C₁-C₈-haloalkyl,

or

 R^{1-B} b)

represents hydrogen, C₁-C₈-alkyl, C₁-C₆-alkylsulphinyl, C₁-C₆-alkylsulphonyl, C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈-cycloalkyl; C₁-C₆-haloalkyl, C₁-C₄-haloalkylthio, C₁-C₄-haloalkylsulphinyl, C₁-C₄-haloalkylsulphonyl, halo-C₁-C₄alkoxy-C₁-C₄-alkyl, C₃-C₈-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; formyl, formyl-C₁-C₃-alkyl, (C₁-C₃-alkyl)carbonyl-C₁-C₃-alkyl, (C₁-C₃-alkoxy)carbonyl-C₁-C₃-alkyl; halo-(C₁-C₃-alkyl)carbonyl-C₁-C₃-alkyl, halo-(C₁-C₃-alkoxy)carbonyl-C₁-C₃-alkyl having in each case 1 to 13 fluorine, chlorine and/or bromine atoms;

 $(C_1-C_8-alkyl)$ carbonyl, $(C_1-C_8-alkoxy)$ carbonyl, $(C_1-C_4-alkoxy-C_1-C_4-alkyl)$ carbonyl, $(C_3-C_8-cycloalkyl)$ carbonyl; $(C_1-C_6-haloalkyl)$ carbonyl, $(C_1-C_6-haloalkyl)$ carbonyl, $(C_1-C_6-haloalkyl)$ haloalkoxy)carbonyl, (halo-C₁-C₄-alkoxy-C₁-C₄-alkyl)carbonyl, halocycloalkyl)carbonyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; or -C(=O)C(=O)R⁴, CONR⁵R⁶ or -CH₂NR⁷R⁸, and

 R^{3-B} represents halogen, C1-C8-alkyl, C1-C8-haloalkyl,

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and R², R⁴, R⁵, R⁶, R⁷ and R⁸ are each as defined in Claim 1.

15. Isopentone derivatives of the formula (V)

$$\begin{array}{c|c} A & & \\ & & \\ R^1 & & \\ & &$$

5 in which R¹, R², R³ and A are as defined in Claim 1.

16. Isopentene derivatives of the formula (VI)

$$A \xrightarrow{N} R^2$$
 R^3
 $H_3C \xrightarrow{CH_3}$
(VI)

in which R¹, R², R³ and A are as defined in Claim 1.

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17. Isopentyne derivatives of the formula (VII)

$$\begin{array}{c|c}
A & R^2 \\
R^1 & R^3 \\
H_3C & CH_3
\end{array}$$
(VII)

in which

 R^1 , R^2 and R^3 are as defined in Claim 1,

15 A is as defined in Claim 1, but not A1.

18. Alkanoneanilines of the formula (X)

$$R^{1}$$
 R^{1}
 R^{3}
 CH_{3}
 CH_{3}
 (X)

in which R1, R2 and R3 are as defined in Claim 1.